

Remarks

Claims 20, 23 and 31 are currently amended herein, claim 26 is cancelled, and new claims 32-37 are added. Claims 20-25 and 27-37 are currently pending.

Claim Rejections - 35 USC §102

WO 91/16831 (Seymour) fails to anticipate claims 20-22, 24, 25, and 28 for the reasons illustrated in Exhibit A attached hereto. This exhibit shows Figs. 9a-9c of Seymour overlaid by the bones of a foot, as prepared by the inventor who is a podiatrist. According to Seymour, Fig. 9a shows the reservoir shape for a sole of a normally pronating person; Fig. 9b for a sole of a person who over-pronates; and Fig. 9c for a person who over-supinates. It will be observed that in each instance, the forward reservoir underlies all of the metatarsal necks of the foot. This is not the case in applicant's claimed design where the cushioning insert is recited as not overlying the "second region of the forefoot section", which is defined as a portion of the outsole corresponding to at least one of the metatarsal necks associated with the second and third metatarsal heads. It is important in this regard that at least one of these two metatarsal necks be supported by firmer material for proper flexing of the foot during running and walking, as explained in the paragraph bridging pages 10 and 11 of the application. To provide this firmer support in the embodiment of Fig. 8, for example, applicant's insert has a "jog" in it in the area of at least one of the second and third metatarsal necks, so that this area of the foot is supported by material having an greater resistance to compression than the

cushion insert. This feature of claims 20-22, 24, 25, and 28 is not taught by Seymour, and the rejection of these claims as anticipated should be withdrawn.

Claim Rejections - 35 USC §103

Applicant respectfully disagrees with the rejection of claim 23 as unpatentable over Seymour '831 and US Patent No. 2,707,340 (Scala). As noted above, Seymour fails to teach applicant's claimed insert design, and Scala is similarly lacking, so that claim 23 is patentable.

Claim 23 is amended to further distinguish over the prior art by specifying that the upstanding ribs of applicant's outsole have upper ends which form the upper surface of the heel, arch and forefoot sections of the outsole for supporting the cushioning insert and the insole. In sharp contrast, Scala shows upstanding ribs only in the heel section of the outsole. For these reasons, the allowance of claim 23 is requested.

Claims 29, 30 and 31 are also believed to be patentable over Seymour for the reasons stated above in regard to claim 20. Further, the claim specifies that the insert is made out of a foam material having a specified hardness. The examiner asserts in the action that the use of the claimed foam would have been obvious to one of ordinary skill in the art. Applicant respectfully disagrees. Seymour teaches away from the use of foam. In the paragraph at the bottom of page 1 the reference, Seymour discusses prior cushioning systems (including those using synthetic compressible memory plastics) and concludes that such systems "cannot provide both cushioning and for a substantial base under the forefoot in order to get a

better push-off platform and "kick" to improve performance." To overcome this problem, Seymour created a design involving fluid-filled reservoirs connected by a channel which closes when compressed by the foot to prevent the escape of fluid from a reservoir, thereby providing a better push-off platform, and which opens when released to allow fluid to flow from one reservoir to the other. To replace the fluid with foam, as contended by the examiner, would defeat the entire purpose of Seymour's invention, and one of ordinary skill in the art would not have been so motivated.

Further, the specific hardness ranges specified in claims 29-31 would not have been obvious. For example, claims 29 and 31 specify that the hardness of the softer, cushioning material is less than 70 (Type C), and claim 30 specifies the hardness as about 40-60 (Type C). These ranges provide the dual advantage of not only cushioning the foot to attenuate impact during landing, but also supporting the arch at the "keystone" or navicular of the midfoot, i.e., between the talus and cuneiform bones, for stopping pronation (front contact to midstance phase of the gait) of the foot and thus allowing the foot to stabilize for resupination from midstance to toe-off. This dual synergistic effect would not have been obvious, and these claims are believed to be allowable for these additional reasons.

New Claims 32-37

Claims 32 and 34 depend from claims 20 and 31, respectively, and specify that applicant's insert has a width sufficient to support a lateral region of the arch of the foot extending rearward from the fourth and fifth

metatarsal heads and necks of the foot. These claims further distinguish over the design shown in Seymour '831 where the capillary tube 19 is very narrow and functions primarily as a valve to control the flow of fluid between the two reservoirs during running and walking. As a practical matter, the tube 19 is too narrow to provide substantial cushioning support for the lateral region of the arch of the foot. In applicant's claimed design, the arch section of the insert is configured for supporting a much wider portion of the arch of the foot, i.e., a portion extending rearward from the fourth and fifth metatarsal heads and necks of the foot. This feature is not shown or suggested by Seymour where, as illustrated in Exhibit A, the tube 19 extends rearward only from the fifth metatarsal head and neck.

For this additional reason, it is submitted that claims 32 and 33 are allowable.

Claims 33 and 35 depend from claims 20 and 31, respectively, and specify that applicant's outsole (which has the insert-receiving cavity therein) is of one-piece construction. This feature, shown in Figs. 7-9 of the pending application, further distinguishes over Seymour where the reservoir-receiving recesses 15 are in the midsole 14, not in the outsole. It should be emphasized in this regard that Seymour's midsole is made of a material (cellular foam) completely different from the outsole material (rubber), so that it would not have been obvious to make them of one-piece construction.

Claim 36 is a new claim directed to applicant's footwear having a cushioning insert. The claims specifies a number of the distinguishing features discussed above, including the feature where the insert does not overly a portion of the outsole corresponding to at least one of the second and third metatarsal necks of the foot, the feature where the cushioning insert is made out of a foam material,

and the feature where the insert extends rearward from the fourth and fifth metatarsal heads and necks of the foot to provide proper support for the arch of the foot. For the reasons discussed above, this claim is believed to be allowable.

Claim 37 depends from claim 36 and parallels claims 33 and 35 by specifying that applicant's outsole (which has the insert-receiving cavity therein) is of one-piece construction. For the reasons noted above, this claim is submitted as allowable.

Conclusion

In view of the foregoing, the claims are believed to be allowable and a Notice of Allowance is requested. The examiner is invited to telephone the undersigned at 314-231-5400 if that would expedite allowance of this application.

Respectfully submitted,



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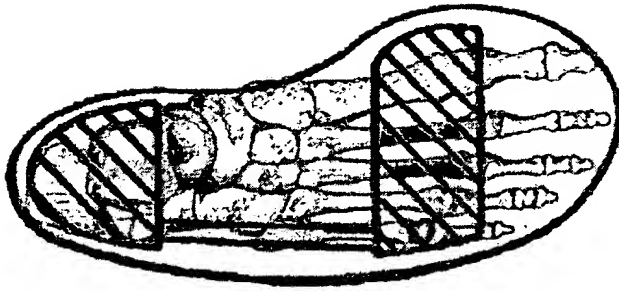


FIG. IXa

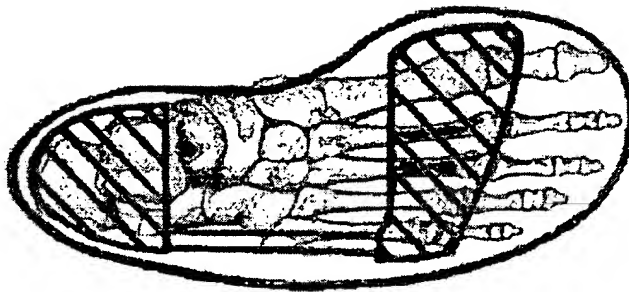


FIG. IXb

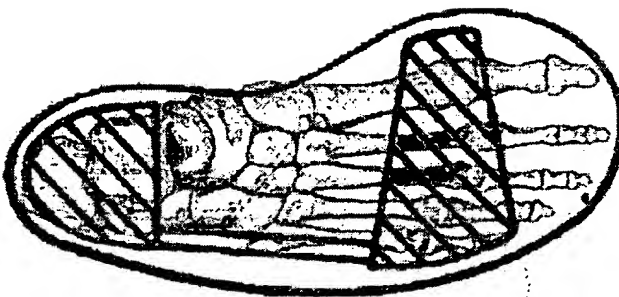


FIG. IXc